It is a great pleasure to be in the midst of such a galaxy of eminent civil servants, serving and retired, academics and corporate citizens associated with the Indian Institute of Public Administration (IIPA). IIPA was established in the year 1954 to undertake academic activities to enhance the leadership qualities and managerial capabilities. The idea is to build capacity for good governance and create mechanism for efficient delivery of public goods and welfare supporting benefits to the people, particularly the disadvantaged groups. And this is exactly what we need to do for the success of financial inclusion in a framework of appropriate policies, supportive partnerships, efficient processes and suitable products. As we all know, financial inclusion has attained policy criticality to ensure growth with equity. In sync with the objective of inclusive growth, the Reserve Bank of India, the Government and civil society in India has been according high priority to the agenda of financial inclusion over the last few years. Let me begin with the importance of financial inclusion in the context of Indian economy in general and the financial system in particular.

**Importance of financial inclusion**

2. In majority of the developing countries, access to finance is now being perceived as a public good, which is as important and basic as access, say, to safe water or primary education. A question that arises is whether financial inclusion can be interpreted as a public good. A good is considered a public good if it meets the conditions of ‘non-rivalness’ in consumption and non-excludability. I am sure you would agree that financial inclusion meets the two criteria. One of the important effects of financial inclusion is that the entire national financial system benefits by greater inclusion, especially when promoted in the wider context of economic inclusion. The concept of financial inclusion has a special significance for a growing economy like India as bringing the large segment of the productive sectors of the economy under formal financial network could unleash their creative capacities besides augmenting domestic demand on a sustainable basis driven by income and consumption growth from such sectors. Financial inclusion efforts do have multiplier effect on the economy as a whole through higher savings pooled from the vast segment of the bottom of the pyramid (BoP) population by providing access to formal savings arrangement resulting in expansion in credit and investment by banks. Deeper engagements of the BoP/under-banked population in the economy through the formal financial system could lead to improvement of their financial conditions and living standards, enabling them to create financial assets, generate income and build resilience to meet macro-economic and livelihood shocks. Government also immensely benefits by way of efficient and leakage-proof transfer of vast amounts of welfare benefits to the targeted, disadvantaged groups of population.

---

1Based on the keynote address delivered by Shri Harun R Khan, Deputy Governor, Reserve Bank of India at the symposium on “Financial inclusion in Indian Economy” organized by the Indian Institute of Public Administration, Bhubaneswar on June 30, 2012. The speaker acknowledges the contribution of Rekha Mishra, Sushma Vij, Pankaj Ekka and Surajit Bose of Reserve Bank of India.
Concerns relating to AML/CFT get addressed through financial inclusion efforts without compromising the basic KYC requirements. From the perspective of the Reserve Bank of India, greater participation by all the economic agents in the financial system makes monetary policy more effective and, thereby, enhancing the prospects of non-inflationary growth. It also reduces reliance on the informal sector which tends to dent the impact of monetary policy decisions.

Financial Inclusion: India’s position compared with other countries

3. The extent of financial exclusion in India is found to be higher as compared with many developed and some of the major emerging economies. The wide extent of financial exclusion in India is visible in the form of high population per bank branch and low proportion of the population having access to basic financial services like savings accounts, credit facilities, credit and debit cards. The following table summarises India’s performance in the area of financial inclusion as compared with other developing as well as developed countries (Table 1).

Table 1: Select indicators of Financial Inclusion - Cross Country Analysis

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Branches (per 0.1 million adults)</th>
<th>Number of ATMs</th>
<th>Bank credit</th>
<th>Bank deposits (as per cent of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>10.91</td>
<td>5.44</td>
<td>43.62*</td>
<td>60.11*</td>
</tr>
<tr>
<td>Austria*</td>
<td>11.81</td>
<td>48.16</td>
<td>35.26</td>
<td>32.57</td>
</tr>
<tr>
<td>Brazil</td>
<td>13.76</td>
<td>120.62</td>
<td>29.04</td>
<td>47.51</td>
</tr>
<tr>
<td>France</td>
<td>43.11</td>
<td>110.07</td>
<td>56.03</td>
<td>39.15</td>
</tr>
<tr>
<td>Mexico</td>
<td>15.22</td>
<td>47.28</td>
<td>16.19</td>
<td>20.91</td>
</tr>
<tr>
<td>UK*</td>
<td>25.51</td>
<td>64.58</td>
<td>467.97</td>
<td>427.49</td>
</tr>
<tr>
<td>United States</td>
<td>35.74</td>
<td>173.75*</td>
<td>46.04</td>
<td>53.14</td>
</tr>
<tr>
<td>Korea</td>
<td>18.63</td>
<td>250.29*</td>
<td>84.17</td>
<td>74.51</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>2.25</td>
<td>0.50</td>
<td>11.95</td>
<td>21.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>7.69</td>
<td>14.88</td>
<td>27.57</td>
<td>53.02</td>
</tr>
</tbody>
</table>

Note: Data pertains to 2010. For rows/cells indicated as '*' data pertains to 2009.
As at end of 2010-11, the number of ATMs per 0.1 million stood at 6.3, bank credit and bank deposit as a percentage of GDP stood at 50.10% and 66.10% respectively.

Measuring financial inclusion

4. One of the measures of the level of financial inclusion is the Financial Inclusion Index. This index is based on three basic dimensions of an inclusive financial system – banking penetration, availability of the banking services and usage of the banking system. ² Banking penetration is definitely the most critical parameter for measuring the depth financial inclusion and is measured as a ratio of bank accounts to the total population. The second parameter, availability of banking services provides an indication to the number of bank outlets available per 1000 people to deliver financial services. The bank outlets may include the brick and mortar branches, ATMs, business correspondents, etc. The third parameter seeks to determine the usage of banking services going beyond mere opening of accounts. Therefore, this is

evaluated on the basis of outstanding deposits and credits. Accordingly, the volume of outstanding deposit and credit as proportion on the net district domestic product is used for measuring this dimension. According to the value of the index, Indian States can be classified into three categories, i.e., states having high, low and medium extent of financial exclusion. According to the empirical results, Kerala, Maharashtra and Karnataka are some of the States having wider extent of financial inclusion as compared to other States of India. Tamil Nadu, Punjab, Andhra Pradesh, Himachal Pradesh, Sikkim and Haryana fall under the category of medium financial exclusion.

Chart 1: State-wise index of financial inclusion

![Chart 1: State-wise index of financial inclusion](image)

The extent of financial inclusion is found to be significantly low in North-Eastern and Eastern States, i.e., Assam, Nagaland, Manipur, Odisha, Bihar, West Bengal, etc. Though the index and findings of the report in reference are based on empirical study, they are possibly not way off the ground realities.

**Indian approach to financial inclusion**

5. Financial inclusion can be construed in two ways. One is countering the exclusion from the payment system that is, not having an access to a bank account. The second is countering the exclusion from the formal financial services. The Indian approach in recent years has been to establish the basic right of every person to have access to a bank account. This approach is based on the fundamental principle of 5A’s of ensuring Adequacy and Availability of financial services to all sections of the society through the formal financial system covering savings, credit, remittance, insurance, etc. and, at the same time, increasing Awareness of such services and ensuring Affordability and Accessibility of the appropriate financial products through a combination of conventional and alternative delivery channels and technology enabled services and processes. Against this background, we can see large variance in the level of financial inclusion across the country. The Reserve Bank has therefore been pursuing a multi-pronged strategy for enhancing the outreach of financial services including the delivery channels across all sections. The entire spectrum of the financial system which comprises
commercial banks, regional rural banks (RRBs), urban co-operative banks (UCBs), primary agricultural credit societies (PACS) and post offices is, therefore, geared for this purpose. Besides, self-help groups (SHGs) and Micro Finance Institutions (MFIs) also meet the financial service requirements of the poorer segments. Furthermore, banks have been encouraged to use a combination of strategies which include provision of new products and relaxation of processes coupled with leveraging ICT for efficient handling of low ticket large volume transactions. Broadly, the policy approach adapted to financial inclusion in India can be divided in two categories – the minimalist approach and the expanded approach.

6. The **minimalist approach** for financial inclusion focuses on the provision of a bouquet of basic financial products and services, including thrift, credit, remittance and payment facilities for the vulnerable and financially excluded sections. Banks have been urged to include products, such as, savings cum overdraft product, remittance product, pure savings product and entrepreneurial credit product while pursuing the objective of greater inclusion. The **expanded approach** for financial inclusion, on the other hand, focuses not only on the provision of the basic banking products but also other important ancillary financial products, such as, general insurance, health insurance, micro-pension, mutual fund, finance for affordable housing, etc. The expanded bouquet of financial inclusion would also entail focus on consumer protection and education, particularly financial literacy for the new entrants to the formal financial system. Sustainable and viable financial inclusion, which would be a win-win proposition for both those who supply financial services and those who demand the same, would also mean that financial inclusion in a sense forms a part of the broader context of economic inclusion.

7. Against this background, I shall now touch upon some of the major issues and challenges in relation to partnerships, processes, policies and products involved in Indian efforts at financial inclusion in the recent years.

**SHG-Bank Linkage Programme**

8. In the last two decades, the major institutional innovation in India for expanding financial system access and usage for the poor and marginalized sections of the population has been the SHG-Bank Linkage Programme (SBLP). This was an outcome of pilot projects during the 1980s for improving access of rural poor to formal institutional financial services. For the banks, it was a way of reducing their transaction costs by dealing with groups of people rather than individuals, reducing the credit risks through peer pressure and making people save. Subsequently in the year 1992, the National Bank for Agriculture and Rural Development (NABARD) started a pilot project of linking SHGs with branches of banks across the country. The project provided a cost-effective SBLP model for providing financial services to the underserved poor. Being a ‘savings-first, credit later’ model, credit discipline became a norm for SHGs and ‘social collateral’ made them bankable. The model was also successful in providing solution to the twin problems faced by banks, i.e., low recovery of loans in rural areas and high transaction costs in dealing with small borrowers at frequent intervals. One of the major positive impacts of the SBLP was social and economic empowerment of the membership.
Table 2: SHG-Bank Linkage Programme
(numbers in millions)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of SHGs savings linked with banks</td>
<td>6.95</td>
<td>7.46</td>
</tr>
<tr>
<td>Total savings amount of SHGs with banks</td>
<td>₹61.98 billion</td>
<td>₹70.16 billion</td>
</tr>
<tr>
<td>Total number of SHG credit linked during the year</td>
<td>1.58</td>
<td>1.19</td>
</tr>
<tr>
<td>Total amount of loans disbursed to SHGs during the year</td>
<td>₹144.53 billion</td>
<td>₹145.47 billion</td>
</tr>
<tr>
<td>Total number of SHGs having loans outstanding</td>
<td>4.85</td>
<td>4.78</td>
</tr>
<tr>
<td>Total amount of loans outstanding against SHGs</td>
<td>₹280.38 billion</td>
<td>₹312.21 billion</td>
</tr>
<tr>
<td>Estimated number of families covered</td>
<td>97.00</td>
<td>97.00</td>
</tr>
</tbody>
</table>

Source: Status of Micro Finance in India, NABARD

9. Despite the noteworthy accomplishments of SHGs (Table 2), certain issues, such as, inadequate outreach in many regions, delays in opening of SHG accounts and disbursement of loans, impounding of savings by banks as collateral, non-approval of repeat loans by banks even when the first loan was repaid promptly, multiple membership, borrowings by SHG members within and outside SHGs, adverse consequences of unhealthy competition between NGO promoted SHGs and Government promoted/subsidy oriented SHGs and limited banker interface and monitoring continued to affect the programme in many areas. While the basic tenets of the SHGs being savings led credit product remain true even today, recent developments have given rise to the need for crucial changes in the approach and design of SBLP to make it more flexible and client friendly. The revised NABARD guidelines, popularly known as SHG2 (version 2), have sought to address some of the shortcomings of the earlier version. The major features of SHG2 are: (a) more focus on voluntary savings; (b) cash credit system of lending over three to five years cycle to minimize the problem of inadequate finance and non-availability of repeat loans; (c) enabling creation of Joint Liability Groups (JLGs) within SHGs to scale up economic activities by more entrepreneurial members of the group; (d) improving risk mitigation systems by bringing in third party audit; (e) building second tier institutions; (f) strengthening the self-monitoring mechanism and (g) meeting the training/capacity building requirements of the SHGs.

Microfinance Institutions (MFIs)

10. Given the limitation of scaling up SHG movement in the absence of human and financial resources and in the absence of deeper geographical penetration of formal banking system due to several demand and supply side factors, other intermediaries with a reach to the excluded segments of the society were required to augment the efforts. Semi-formal financial sector service providers like the MFIs fill this niche space and, to that extent, play a critical role in the financial inclusion. The MFIs have served the underserved/un-served populace in the last few years and improved access to credit though there have been quite a few debatable issues on the style of corporate governance and ethics of conducting business on part of some of the MFIs. Despite these debates, it has been realized that the MFIs do help in financial deepening and can remain an important segment of the Indian financial market keeping in view the present level of penetration of the banking system. Many of the MFIs have therefor ben conduits of credit flows...
from the banks whose capacities for last mile reach are constrained under various forms of MFI-bank partnership model.

11. The conceptual framework underlying MFIs, however, requires a change, more so in the context of serious challenges the sector faces in post Andhra crisis phase. These institutions have to revisit their business models to support the income earning ability of the borrowers and, at the same time, themselves remain economically viable. MFIs will have to work hard in pursuit of transparency and responsible finance, shaking off the perception that their motto is profiteering at the cost of the poor but not profitability for sustainable and viable growth. MFIs will also have to take initiatives to retool the product redesign for garnering new customers and acquiring more share of the market. At the same time they need to re-engineer the customer responsive processes so as to create a favourable climate for doing business. MFIs will have to revisit the mission and business strategy and reinvent the sector to remain relevant in the system. Creation of a new category of MFI-NBFC under the framework prescribed by the Malegam Committee, more nuanced appreciation by the financing banks of the difficulties being faced by some of the MFIs despite having responsible and sustainable business model, greater sense of responsibility in the sector as evident from the code of conduct being voluntarily accepted by the MFIs and the Microfinance legislation which is in the offing, possibly hold key to future success and sustainability of the MFIs.

Business Correspondents (BCs)

12. Due to the constraints involved in going for a full-fledged brick & mortar branch model, the Reserve Bank, based on the recommendations of the Internal Group on Rural Credit and Microfinance, adopted the ICT based agent bank model through Business Facilitators (BFs)/ Business Correspondents (BCs) for ensuring door step delivery of financial products and services. In January 2006, the Reserve Bank permitted banks to engage BF and BCs like NGOs/MFIs set up under the Societies/Trust Acts, Section 25 companies, post offices, etc. as intermediaries for providing financial and banking services, thus, addressing the proverbial last mile problem. The approach adopted has been technology and delivery model neutral. Initially, the BC retail outlets were being created by the banks themselves.

13. Over the last few years, however, a number of innovations, in particular with regard to the universe of entities that can work as agents of banks (individuals like retired bank/government employees, kirana/fair price shops, insurance agents, operators of common service centres, etc.), have been brought in under the BC model so as to scale up the financial inclusion drive in a sustainable manner, latest being the use of corporate entities as BCs of banks. The adoption of corporate entities as BCs has, however, raised a number of issues both for the partner banks and also for the regulators. On one hand, the corporates with a widespread retail network bring in larger resources, higher organizational strength and financial backing needed for a large network of BCs besides providing financial security to the bank. The outlets of corporates being familiar to the local populace are able to tap the benefit of ‘one of us’.

Page 6 of 14
14. On the other hand, the challenges arise in the event of failure of a large corporate BC as this would translate into a reputation risk to the banks and endanger their substantive business. From the perspective of a regulator, the major cause of concern is that banking and financial services should not be thrust on the uninformed customers. Corporates in the interest of revenue maximisation may use their resources and network to push banking and financial products, unmindful of whether they are suitable or appropriate for the targeted persons. There is also the issue of lack of grass-root level of experience of rural India and possibly lack of commitment to financial inclusion per se on the part of large corporates/technology service providers.

15. Business Correspondents bridge the connectivity gap between the service seekers, i.e., under-served populace, and the service providers, i.e., the banks. Banks, being regulated entities, are governed by prudential regulations and supervisory rules, e.g. adherence to KYC/AML, consumer protection laws, etc. In the BC-oriented model of financial inclusion, pursuit of higher volume of business for revenue maximization may dilute prudential requirements exposing the banks concerned to whole host of risks like reputation risk, strategic risk, compliance risk, operations risk besides the risk of contaminated asset portfolio. In case of a cluster approach where a common BC could for many banks then there could be issue of concentration risk. These risks may get further aggravated if the monitoring systems of the banks are not strong enough to detect these red flags. Given the lack of financial strength of the BCs, risk of inability to fulfil commitments arising due to shortfalls in cash due to frauds, errors, etc. is high. Banks engaging BCs may, therefore, have to put in place risk mitigants and adequate checks and balances to prevent such incidents and also ensure proper customer redressal. The sponsoring banks are expected to lay down processes, procedures and practices for the BCs but there still exists a risk that some agents may end up pursuing activities or adopting processes which are inconsistent with the overall strategic goals of the bank concerned. Further, banks and their BCs also exposed to huge risk of cash management, particularly as cash dependence of the economy continues to be very high. There is also huge requirement of hand-holding and training of the BCs to enhance the trust level of the end customers. In this context, the current thinking of having lean, brick and mortar outfits of the banks (e.g. ultra small branches) to provide support to and supervise work of certain number of BCs appears to be a step in right direction. The success of BC model also hinges on adoption of technology, which in turn, is dependent on the degree of compatibility and integration of technology being used by the banks and their BCs. Lack of integration of technology and processes may lead to delay in submission or submission of accurate information to the regulators or generating MIS for the internal use by the banks. There is a view that banks could also have their in-house BC outfits in the form of separate trusts/subsidiaries with separate recruitment and remuneration structure but under closer supervisory control. This idea is worth a trial.

16. Viability of the BC model in general has remained a critical issue for which the model has not taken off as expected. There is a mismatch between the revenues earned and costs incurred while undertaking the BC operations, resulting in non-viability of the model. Hence, attempts to employ large BCs
under competitive L-1 (lowest one) bidding system without ensuring their financial and technical capabilities and without assessing the performance of a large number of existing BCs who are yet to become viable, run the risk of creating huge uncertainty for the whole system of Bank-BC partnership model. Many of the BCs became non-operational due to lack of timely payments by banks or inadequate commission paid by banks. It is extremely critical to ensure that the remuneration paid to the BCs is adequate to keep the model economically viable and attractive. A combination of fixed and variable pay would encourage BCs to strive harder for bringing in more business for the bank. Under the circumstances, it is imperative that the Bank-BC partnership model is structured appropriately, supervised closely by the banks/regulators and scaled up in a calibrated manner after taking into account the problems encountered at the grass-root level. If this is not done, there is a huge risk of the entire model being discredited with all its adverse consequences for the financial inclusion efforts.

17. Having discussed the three important partnerships in the pursuit of financial inclusion, I would now turn towards products and technology enabled processes in the next part of my address.

Product initiatives

18. Reserve Bank of India has been providing policy impetus for introduction of new products and innovative intermediary channels to enable sustainable and meaningful financial inclusion. The ‘no-frills account’ (NFA) has been one of the landmark financial products which allowed financially excluded individuals to access banking services for the purpose of savings and also had credit feature in the form of overdraft facility. To ensure that more and more people come within the banking fold and realizing that there is some stigma attached to the NFA, it is now felt that banks should offer all the customers a ‘basic savings deposit account’ with certain minimum common facilities and without the requirement of minimum balance. The services provided in this account should include deposit and withdrawal of cash at the bank branches as well as ATMs, receipt/credit of money through electronic payment channels or by means of deposit/collection of cheques drawn by Central/State Government agencies and departments. The Reserve Bank is currently in the process of issuing guidelines on opening of such basic savings bank deposit account by banks. Another innovative product offered by the banking system is the General Credit Cards. This was, however, preceded by Kisan Credit Cards which are likely to undergo major transformation when they become smart-card based cards. Innovation of products for the specific needs of the poor is necessary for achieving the ultimate objective of inclusive growth. A bouquet of products may be offered through the BCs instead of a single product to make the financial inclusion efforts viable.

19. Rural customers are looking upon banks for insurance products in view of their confidence in the banking system. Insurance is a useful way for households to protect themselves from financial shocks and other adverse events. Unfortunately, although a range of insurance products is available, very few of them have migrated successfully downmarket to serve the poor, whose need for such protection is arguably more acute. One plausible reason
holding back the diffusion of micro-insurance is transaction costs, i.e., the cost of selling and underwriting insurance and evaluation of claims in a timely and efficient manner. Using traditional channels and processes, insurance companies simply cannot write policies with values below a certain floor without pricing them unrealistically. Moreover, micro-insurance is a low-cost, high-volume business; therefore, scale of economy is crucial for success. Currently, only insurance company agents, banks, microfinance institutions, non-governmental organizations and SHGs are allowed to sell micro-insurance policies, while a BC is authorized to offer banking services, such as, cash transactions to customers. The BC network could be tapped to increase penetration of micro-insurance and take insurance to the uninsured segments of the country. The concern, however, remains on account of the possibility of mis-selling.

**Tapping technology platforms**

20. It has been observed that the product initiatives are usually scaled down versions of the existing products. To enable a successful financial inclusion, innovation of products for the specific needs of the poor is not only necessary but also an essential condition. Today, banks can provide a bouquet of financial services through the various networks of agents and branches by leveraging and fine tuning technology platforms. Technology holds the key to providing models for efficient delivery of small value transactions in large volumes while reaping economies of scale. The implementation of such effective, scalable and platform-independent technology will help drive down the cost of providing banking services to the poor. Further, technology helps in spreading financial literacy both as a delivery channel and as an intrinsic part of the learning process (e.g., instructional computer). Today, both the service providers and service seekers have a number of technology options, such as, smart cards, micro-ATMs, ATMs, mobile technology, Aadhaar Enabled Payment Systems (AEPS), etc. to choose from to provide/seek financial services irrespective of their geographic locations.

**Mobile banking**

21. Mobile banking transactions have been defined as customers undertaking banking transactions using mobile phones involving credit/debit to their accounts. With the rapid growth in the number of mobile phone subscribers in India, banks in collaboration with telecom companies are seeking to develop an alternate channel of delivery of banking services. Keeping in view the issues relating to diversity of network providers in India, remittance centric approach of such model and KYC related concerns, the Reserve Bank has advocated bank-led mobile banking model and issued operative guidelines to banks for effecting mobile based banking transactions. As on May 31, 2012, the Reserve Bank had permitted 69 banks to provide mobile banking services to their customers. During May 2012, about 3.34 million transactions amounting to ₹2.86 billion as against 1.28 million transactions amounting to ₹0.91 billion in May 2011 were transacted through this channel. Even though the value and volume are increasing on month on month basis, the growth rate is low when compared with the number of bank accounts and the vast mobile subscriber base of more than 900 million. This indicates that banks are
yet to fully exploit this technology even for their existing customers. While the Reserve Bank has provided the policy framework for a collaborative relationship between the banks and mobile network operators, the results of this collaboration are not yet fully visible. Some of the likely reasons which have been flagged relate to ownership of the customer, control of transactions and developing an appropriate revenue sharing model. The need of the hour, therefore, is that the banks and the mobile operators reach a workable understanding while protecting their mutual interests. Such an approach would result in a “win-win” situation for both and, more importantly, serve the larger cause of public good of financial inclusion.

22. The Inter Bank Mobile Payment Service (IMPS), an instantaneous 24x7 electronic funds transfer system has been developed by the National Payment Corporation of India (NPCI). Despite tremendous potential of the product, the volumes are low, probably due to the reluctance of the telecom companies to offer the common Unstructured Supplementary Service Data (USSD) platform. The USSD platform is menu driven and can be invoked by dialling a number. Its main advantage is that even users with low-cost handsets can perform their banking transactions through the mobile phone. It is, however, gathered that the telecom companies prefer negotiating with individual banks on the issue rather than with NPCI in providing such a common USSD platform. Telecom companies, regulatory authorities, NPCI and all the stakeholders need to work together to draw up a roadmap for increasing the IMPS supported mobile banking transactions.

Mobile based remittance services

23. Many countries have experimented with mobile based remittance services for reaching the unbanked population. The success story cited often is that of M-Pesa in Kenya. Several mobile based remittance services are operating in a few countries, e.g. Tigo Cash in Paraguay, Pago Movi in Peru, Nipper in Mexico and Oi in Brazil. The common thread running through all these examples have been the successful deployment of technology to service low income, financially excluded households. Most schemes use mobile phones for providing financial service platforms, others use point-of-sale (PoS) devices in conjunction with magnetic stripe cards (mostly in Latin America), some use both mobile phones and point-of-sale devices (e.g. WIZZIT in South Africa and Smart in the Philippines). In Indian context, among others, money transfers through mobile wallets (upto ₹ 50,000 for the present) leveraging National Electronic Fund Transfer (NEFT) platform of RBI being promoted by a few telecom companies hold a great promise for facilitating small value remittances.

Aadhaar Enabled Payment Systems (AEPS)

24. The AEPS architecture designed by Unique Identification Authority of India (UIDAI) in collaboration with the NPCI is a platform which banks can leverage upon for expanding their financial inclusion initiatives. The basic premise of AEPS is that one BC Customer Service Point (CSP) will have the ability to service customers of many banks based on the unique bio-metric
identification data stored in the Aadhaar database. The AEPS platform is expected to empower a bank customer to use Aadhaar as his/her identity to access the respective Aadhaar enabled bank account and perform basic banking transactions like balance enquiry, cash withdrawal and deposit through the BC. A pilot scheme in four districts of Jharkhand state is currently being carried out under which MGNREGA wages to labourers are credited to their Aadhaar enabled bank accounts. The beneficiaries withdraw the amounts through micro-ATMs which authenticate their Aadhaar number. There is a need to scale this up across the country.

Issues and challenges in ICT based financial inclusion

Use of technology

25. For the success of the ICT-based models, resolving technology related issues is the key. One of the major constraints of the ICT based BC model has been the technical problems associated with the model. It has been reported that devices, such as, hand held machines, smart cards, PoS terminals and utilities which are crucial to the functioning of the model are not properly functioning in many areas of the country. Limited number of technology service providers to cover the unbanked villages of all banks as well as limited service centres for servicing devices has resulted in banking operations coming to a halt in many villages. Given the literacy level of the rural population, availability of trained manpower in the villages to ensure that transactions are carried out in a user friendly manner in the local language and that the customers smoothly transit from assisted model to self-service model in using technology, wherever feasible (e.g. use of ATMs/mobile/internet banking). This could lead to erosion of confidence on the ICT-based BC model. Technical glitches, therefore, need to be addressed quickly. Banks also have to ensure that the turnaround time between account opening and account operationalization has to be minimised so as to gain confidence of the customers in such models.

Security concerns

26. Given the increasing reliance on technology to deliver banking services to customers, it is essential to that adequate attention is paid to security, especially IT security. Security related issues resulting in frauds have the potential to undermine public confidence in the use of electronic payment products. Further, they could also lead to reputation risks. While preventing fraud through robust security measures, one should not lose sight of the fact that the ease and efficiency in operations for the customers is not unduly eroded. Cumbersome security procedures would deter customers from using the product and carrying out electronic transactions. Accordingly, a proper balance should be struck between such apparently conflicting objectives. The Reserve Bank has been taking several measures to strengthen the security for electronic transactions to prevent their misuse. For instance Second Factor Authentication has been made mandatory for all Card Not Present (CNP) transactions (e.g. requirement of PIN in addition to CVV while putting through the transactions). Similar measures are going to be implemented for Card Present (CP) transactions (e.g. use of chip and PIN or Aadhaar cards) over a defined time period. SMS alerts now made mandatory for all card
related transactions is another added security feature. Encryption of transactions for value above ₹5,000/- has also been mandated for all mobile based transactions as a better security protocol.

**Infrastructural limitations**

27. Power supply and network connectivity are issues in most parts of the country, especially, so in the rural/remote areas. While banking transactions are enabled on a real-time basis in urban centres, it often takes more time to complete a transaction in remote areas due to poor internet connectivity and frequent power failures. To overcome this in the North Eastern states, the Reserve Bank had launched the Satellite Connectivity Scheme in 2009 to provide 100% subsidy to bank branches in the North-East Region (NER) subject to a maximum of ₹ 12,000/- per month or the actual expenditure incurred by the bank, whichever is less, subject to the condition that the branches would offer services of electronic funds transfer free of charge to their customers. Of the total 1756 branches in the North-East region, 762 branches (43.4 per cent) had taken satellite connectivity after the launch of the scheme. The scheme has since been extended by another year and Sikkim has also been brought under the ambit of the Scheme.

**Multiplicity of models**

28. Multiple technologies and delivery models could be used based on the geographical peculiarities, infrastructure availabilities, etc. Too many disparate technologies, however, may prove counter-productive as there will be several challenges like integration with CBS, support issues and people at the operating level (i.e. at the level of BFIs and BCs) may not fully apprehend all the products and technologies. So it may be a better idea to narrow down to a few stable and scalable technologies and delivery channels and build the financial inclusion products around them with inter-operability being the key theme.

**Way forward**

**Meaningful collaborations**

29. Financial inclusion calls for significant investment in technology based applications, related research and development efforts, comprehensive MIS and monitoring and evaluation systems. Banks, especially those who desire to have much longer exposure to under-banked/unbanked population could collaborate with technology service providers (TSPs), mobile network operators (MNOs), corporate houses and various categories of BCs to develop efficient delivery models. It is heartening to note that a few banks have also started taking initiatives with couple of them appointing Mobile Service Providers (MSP) to act as their BC. The strategy should aim to create a facilitating eco-system, leveraging on technology and promote partnerships of brick and mortar branches including ultra-small branches with the ICT based BC outlets for evolving an effective financial inclusion delivery mechanism.
Innovative product lines & processes
30. Banks have to look at their policies and procedures to develop new product lines rather than merely adopting the complex products of urban India in the rural milieu. Providing simple and basic banking services in the form of deposit account with remittance services and small credit facility would ideally suffice for bringing the unbanked into the folds of banking system. This will require easy-to-understand documentation process, preferably in the vernacular language, sufficient to meet the legal requirements of the banking entity or the service provider. Innovations, however, should not be restricted merely to product designing. Given the fact that poor are generally susceptible to events that can adversely affect their already fragile livelihoods, more focus is required on enhancing the staying power of the poor. Here comes the importance of insurance which need to be enmeshed with banking products in a seamless manner. Banks should institute systems of reward and recognition for personnel initiating, ideating, innovating and successfully executing new product initiatives and services in the rural areas.

Financial literacy and awareness
31. Campaigns for spreading awareness about financial inclusion and financial literacy need to be intensified. This can be done through innovative dissemination channels including films, documentaries, pamphlets and road shows. Stakeholders, including the regulators and policy makers, may launch large scale awareness programmes. Reserve Bank of India is in the process of launching electronic Banking Awareness And Training (e-BAAT) programmes to increase awareness about technology enabled financial services. Initiatives need to be taken for including financial literacy as a regular curriculum in school syllabus. Training programmes for bank staff, particularly for the frontline staff, should include aspects relating to financial education of the customers. There is also a great need for certain amount of standardization of services/facilities extended by the Financial Literacy and Credit Counselling Centre (FLCC) being set up at several centre by the Lead Banks. Such facilities should cover the entire gamut of the requirements of the under-privileged/inadequately informed customers (e.g. basic financial concepts, appropriateness of savings ad credit products, use of credit cards, financial planning and debt management, retirement planning/micro-pension, insurance, investment, grievance redressal mechanism, awareness about electronic banking and the safeguards to be followed, etc.). It is hoped that the efforts to evolve a nationwide strategy of financial literacy involving all the financial sector regulators across banking, insurance, capital market and pension products would bear the fruits.

Customer service and consumer protection
32. Along with financial literacy and education, customer service is another issue that needs closer attention. In recent years, the Reserve Bank has worked towards improving customer service through better dissemination of information to customers and also by improving the mechanisms for redressing the grievances. Mind-set, cultural and attitudinal changes at the grass-root levels and user friendly technology at the level of branches of banks and BC outlets are needed to extend holistic customer service to the
new entrants to the banking system. Government, regulators like Reserve Bank of India, banks, service providers and consumers themselves have to play important role in developing a comprehensive approach to consumer protection.

Concluding thoughts

33. Reserve Bank has been emphasizing that the bankability of the poor holds a major business opportunity for the banks in developing a stable, retail deposit base and in curbing volatility in earnings with the help of a diversified asset portfolio. The recent crisis has, in fact, underscored the need for reducing banks’ reliance on wholesale deposits and borrowed funds and cultivating a retail portfolio of assets and liabilities for financial stability. The current policy objective of inclusive growth with financial stability cannot be achieved without ensuring universal financial inclusion. Pursuit of financial inclusion by adoption of innovative products and processes does, however, pose challenge of managing trade-offs between the objective of financial inclusion and financial stability. In the Indian context, Reserve Bank has always sought to balance the risk of partnerships and product innovations with the ability to achieve greater penetration in a safe, secured and prudentially sound manner. The underlying belief is that only sound and strong institutions can promote financial inclusion in a sustainable manner and, towards this end, prudent regulations have to be in place to achieve inclusion while protecting financial stability and consumer interest. One such measure, for example, has been restricting deposit taking to banks and encouraging the non-bank financial companies to focus on innovative approaches to lending under a lighter regulatory framework, with additional regulations for systemically important NBFCs. By adopting appropriate regulatory framework for innovations in policies, partnerships, processes and products meant for financial inclusion, Reserve Bank has sought to further the cause of inclusion without falling short of the policy goal of financial stability.

34. I am sanguine about rapid progress of financial inclusion efforts in India as the stakeholders have come to realize the need for viable and sustainable business models which focus on accessible and affordable financial services, products and processes, synergistic partnerships with non-bank entities including the technology service providers for efficient handling of low value, large volume transactions, particularly in remote, banking shadow areas and appropriate regulatory and risk management policies that ensure financial inclusion and financial stability move in tandem.

35. Thank you once again for giving me the opportunity to share some of my thoughts with such distinguished participants.